

NORTHERN DYNASTY MINERALS LTD  
Form 6-K  
March 02, 2007

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

**FORM 6-K**

Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16  
of the Securities Exchange Act of 1934

CIK # 1164771

As at February 20, 2007

**NORTHERN DYNASTY MINERALS LTD.**

**800 West Pender Street, Suite 1020  
Vancouver, British Columbia  
Canada V6C 2V6**

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F...X.... Form 40-F.....

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \_\_\_\_\_

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): \_\_\_\_\_

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ..... No .....

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule

12g3-2(b): 82- \_\_\_\_\_

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

By: /s/ Jeffrey R. Mason  
Director and Chief Financial Officer

Date: February 20, 2007

Print the name and title of the signing officer under his signature.

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**NEW RESOURCE ESTIMATE CONFIRMS PEBBLE EAST AS ONE OF THE WORLD'S MOST  
IMPORTANT COPPER-GOLD-MOLYBDENUM DEPOSITS**

**February 20, 2007, Vancouver, BC** - Ronald W. Thiessen, President and CEO of Northern Dynasty Minerals Ltd. (TSX Venture: NDM; AMEX: NAK) reports that a new mineral resource estimate has increased the inferred mineral resources in the Pebble East copper-gold-molybdenum deposit by nearly 90%, to 3.4 billion tonnes. The Pebble East deposit is contiguous to and deeper than the 4.1 billion tonne near surface Pebble West deposit and is higher grade. Geotechnical assessment has shown that Pebble East is amenable to low cost, bulk underground mining. The combined resources of the Pebble deposits constitute one of the most significant metal accumulations in the world. Northern Dynasty's Pebble Project is located in southwestern Alaska on State land.

**At a 0.60% copper equivalent cut-off**, the estimated inferred mineral resources in the Pebble East deposit are:

**- 3.4 billion tonnes grading 1.00% copper equivalent, containing 42.6 billion pounds of copper, 39.6 million ounces of gold, and 2.7 billion pounds of molybdenum.**

**At a 1.00% copper equivalent cut-off**, the estimated inferred mineral resources are:

**- 1.4 billion tonnes grading 1.29% copper equivalent, containing 24.6 billion pounds of copper, 20.9 million ounces of gold, and 1.2 billion pounds of molybdenum.**

A summary of mineral resources for the Pebble East deposit at various cut-off grades is tabulated below (see also Pebble Project Deposit Plan and Section posted on Northern Dynasty's website at [www.northerndynasty.com](http://www.northerndynasty.com)):

**TABLE 1 - PEBBLE EAST DEPOSIT  
INFERRED MINERAL RESOURCES<sup>1,4</sup>**

| Cut-Off | Size  | Grade    |          |              |                     | Contained Metal |           |                 |
|---------|-------|----------|----------|--------------|---------------------|-----------------|-----------|-----------------|
|         |       | Copper % | Gold g/t | Molybdenum % | CuEQ <sup>2</sup> % | Copper B lb     | Gold M oz | Molybdenum B lb |
| 0.60    | 3,379 | 0.57     | 0.36     | 0.036        | 1.00                | 42.6            | 39.6      | 2.7             |
| 0.70    | 2,835 | 0.62     | 0.38     | 0.037        | 1.06                | 38.8            | 34.9      | 2.3             |
| 0.80    | 2,312 | 0.67     | 0.40     | 0.038        | 1.14                | 34.3            | 30.1      | 1.9             |
| 0.90    | 1,841 | 0.73     | 0.43     | 0.038        | 1.21                | 29.6            | 25.4      | 1.5             |
| 1.00    | 1,421 | 0.79     | 0.46     | 0.039        | 1.29                | 24.6            | 20.9      | 1.2             |
| 1.10    | 1,057 | 0.85     | 0.49     | 0.039        | 1.37                | 19.8            | 16.6      | 0.9             |

Note 1 By prescribed definition, "Mineral Resources" do not have demonstrated economic viability. An Inferred Mineral Resource is that part of a mineral resource for which quantity and grade can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity.

Note 2 Copper equivalent calculations use metal prices of US\$1.00/lb for copper, US\$400/oz for gold, and US\$6.00/lb for molybdenum. Copper equivalent has not been adjusted for metallurgical recoveries. Adjustment factors to account for differences in relative metallurgical recoveries for copper, gold and molybdenum will depend upon the completion of definitive metallurgical testing.  $CuEQ = Cu \% + (Au \text{ g/t} \times 12.86/22.05) + (Mo \% \times 132.28/22.05)$ .

Note 3 A 0.30% CuEQ cut-off is considered to be comparable to that used for porphyry deposit open pit mining operations in the Americas. For bulk underground mining higher cut-offs, such as 0.60% CuEQ, are typically used. All cut-offs are subject to a feasibility study.

Note 4 The resources estimate for Pebble East was prepared by the technical staff of Northern Dynasty and audited by independent consultants, Scott Wilson Roscoe Postle Associates.

The new Pebble East resource estimate is based upon assay results from 132 core holes drilled in the Pebble East area. The estimate was prepared by the technical staff of Northern Dynasty and audited by industry leading geological and mining consultants at Scott Wilson Roscoe Postle Associates Inc., under the direction of David W. Rennie, P. Eng., an independent Qualified Person as defined by National Instrument 43-101. A technical report detailing the resource estimate will be filed on [www.sedar.com](http://www.sedar.com) within 45 days.

The 2006 drilling program at Pebble East expanded the north-south length of the deposit to over 7000 feet, with grades over this extent consistently exceeding 1% copper equivalent. The deposit remains open for expansion to the north and to the south across a width exceeding 4000 feet. Importantly, significant amounts of high-grade copper minerals (predominantly bornite) were intersected during 2006 in the northern most holes drilled and also in holes near the southern most area drilled. The presence of significant bornite mineralization in these holes indicates their proximity to mineralizing centers which are open to extension and appear to be strengthening to the north and to the south.

Northern Dynasty met its target of early February to re-commence drilling at the Pebble Project site. Four rigs are now active, with plans to ramp up to 8 rigs by April.

The 2007 program will focus on Pebble East and consist of two components: delineation drilling and infill drilling. Delineation drilling will contribute to further expansion of resources and the infill drilling will upgrade the classification of known mineralization. Delineation drilling in the order of 100,000 feet will focus on extending the Pebble East deposit to the north and south and also define its eastern and western limits. Infill drilling, comprising approximately 150,000 feet, is also planned with the focus on upgrading the

resource classification of the highest grade 1 billion tonnes of the deposit.

The Pebble East discovery is a substantial addition to the Pebble Project. The mineral resources and the metals contained in the near surface Pebble West deposit, as announced in March 2005 are listed for comparison in Tables 2 and 3 below.

**TABLE 2 - PEBBLE WEST DEPOSIT  
MEASURED PLUS INDICATED MINERAL RESOURCES<sup>1,4</sup>**

| <b>Cut-Off</b>    | <b>Size</b>               | <b>Grade</b>        |                     |                         |                               | <b>Contained Metal</b> |                      |                            |
|-------------------|---------------------------|---------------------|---------------------|-------------------------|-------------------------------|------------------------|----------------------|----------------------------|
| <b>CuEQ<br/>%</b> | <b>Million<br/>Tonnes</b> | <b>Copper<br/>%</b> | <b>Gold<br/>g/t</b> | <b>Molybdenum<br/>%</b> | <b>CuEQ<sup>2</sup><br/>%</b> | <b>Copper<br/>B lb</b> | <b>Gold<br/>M oz</b> | <b>Molybdenum<br/>M lb</b> |
| 0.30              | 3,026                     | 0.28                | 0.32                | 0.015                   | 0.56                          | 18.8                   | 31.3                 | 993                        |
| 0.40              | 2,413                     | 0.31                | 0.35                | 0.016                   | 0.61                          | 16.5                   | 27.0                 | 855                        |
| 0.50              | 1,628                     | 0.35                | 0.39                | 0.018                   | 0.69                          | 12.7                   | 20.5                 | 629                        |
| 0.60              | 970                       | 0.41                | 0.45                | 0.020                   | 0.78                          | 8.7                    | 13.8                 | 420                        |
| 0.70              | 569                       | 0.46                | 0.50                | 0.021                   | 0.88                          | 5.8                    | 9.1                  | 265                        |

**TABLE 3 - PEBBLE WEST DEPOSIT  
INFERRED MINERAL RESOURCES<sup>1,4</sup>**

| Cut-Off | Size  | Grade    |          |              |                     | Contained Metal |           |                 |
|---------|-------|----------|----------|--------------|---------------------|-----------------|-----------|-----------------|
|         |       | Copper % | Gold g/t | Molybdenum % | CuEQ <sup>2</sup> % | Copper B lb     | Gold M oz | Molybdenum M lb |
| 0.30    | 1,130 | 0.24     | 0.30     | 0.014        | 0.50                | 5.9             | 10.8      | 361             |
| 0.40    | 756   | 0.27     | 0.34     | 0.017        | 0.57                | 4.5             | 8.2       | 278             |
| 0.50    | 417   | 0.31     | 0.42     | 0.018        | 0.67                | 2.9             | 5.6       | 168             |
| 0.60    | 226   | 0.36     | 0.49     | 0.020        | 0.77                | 1.8             | 3.6       | 101             |
| 0.70    | 143   | 0.40     | 0.56     | 0.020        | 0.85                | 1.3             | 2.6       | 62              |

Note 1 By prescribed definition, "Mineral Resources" do not have demonstrated economic viability. An Inferred Mineral Resource is that part of a mineral resource for which quantity and grade can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity.

Note 2 Copper equivalent calculations use metal prices of US\$1.00/lb for copper, US\$400/oz for gold, and US\$6.00/lb for molybdenum. Copper equivalent has not been adjusted for metallurgical recoveries. Adjustment factors to account for differences in relative metallurgical recoveries for copper, gold, and molybdenum will depend upon the completion of definitive metallurgical testing.  $CuEQ = Cu \% + (Au \text{ g/t} \times 12.86/22.05) + (Mo \% \times 132.28/22.05)$ .

Note 3 A 0.30% CuEQ cut-off is considered to be comparable to that used for porphyry deposit open pit mining operations in the Americas. For bulk underground mining higher cut-offs, such as 0.60% CuEQ, are typically used. All cut-offs are subject to a feasibility study.

Note 4 The resources estimate for Pebble West was prepared by independent consultants at Roscoe Postle Associates Inc. as described in Northern Dynasty's news release dated March 4, 2005.

Northern Dynasty's goal is to optimize the design of the Pebble Project with regard to the mineral resources in the Pebble West and Pebble East deposits, as well as social, environmental, and economic factors. Northern Dynasty has been engaged in comprehensive engineering, environmental and socioeconomic studies on the Pebble West deposit since 2004. The Company is now focused on thoroughly assessing Pebble East through drilling, engineering and environmental programs in order to integrate this exceptional discovery into a Project Development Plan that is best for a modern, long-life mine.

President Ron Thiessen stated: "In addition to our ongoing very comprehensive, technical, environmental and social programs at Pebble we are assessing the merits and potential participants of a consortium to permit, finance, construct and operate a modern, long-life, mine with very substantial annual metal output. We expect that this process will be achieved successfully because the discovery rate of large copper deposits has declined significantly and the shortage of important, major-company-sized projects is likely to remain a critical issue for the world's large copper miners going forward."

Bob Dickinson, Northern Dynasty's Chairman commented: "Copper production in the United States is falling as major open pit copper mines in the southwest are being exhausted, yet the American public continues to demand the products that utilize this strategic metal. This gap between domestic demand and supply has led to a growing dependency on substantial imports of copper. As the world's developing economies utilize an increasing amount of copper, they are in direct competition for available copper. When combined with growing concerns about global security and the nationalization of resources in many places from which the United States acquires its supply, this presents a compelling case to establish new and secure sources of domestic supply. We believe that Pebble is a very important project because it meets

both of these objectives: it is located on American soil and is large enough to meet a significant portion of the USA's requirements for copper, gold and molybdenum."

Mark Rebagliati, P.Eng., is the Qualified Person supervising the quality control and assurance program for the Pebble Project. Logging and sampling is completed in Northern Dynasty's secure facility at Iliamna, Alaska. The NQ-size core is split and samples are transported to the ALS Chemex laboratory in Fairbanks for drying, weighing and crushing. Samples are shipped by airfreight to ALS Chemex laboratories in, North Vancouver, Canada (ISO 17025 accredited) and Sparks, Nevada (ISO 9001:2000 certified) for final preparation and analysis. Gold is determined by 30 g Fire Assay (FA) fusion with an Atomic Absorption Spectroscopy (AAS) finish. Copper and molybdenum assays are by four acid digestion with an Inductively Coupled Plasma-Emission Spectroscopy (ICP-ES) finish. All samples are also analyzed for 23 additional elements by four acid digestion ICP-ES. Northern Dynasty includes standards, duplicates and blanks in addition to the laboratory's internal quality control work. Duplicate samples are analyzed by Acme Analytical Laboratories of Vancouver, Canada.

Northern Dynasty has 94.1 million shares issued on a fully diluted basis with cash on hand of US\$73 million. An affiliate of Rio Tinto plc has recently increased its shareholdings in Northern Dynasty's to 19.79%.

For further details on Northern Dynasty Minerals Ltd. and its Pebble Project please visit Northern Dynasty's website at [www.northerndynasty.com](http://www.northerndynasty.com) or contact Investor Services at 604-684-6365 or within North America at 1-800-667-2114.

Ronald W. Thiessen  
President and CEO

#### **Forward Looking and other Cautionary Information**

Neither the TSX Venture Exchange nor any other regulatory authority accepts responsibility for the adequacy or accuracy of this release.

This release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts, that address estimated resource quantities, grades and contained metals, possible future mining, exploration and development activities, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements should not be in any way construed as guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices for metals, the conclusions of detailed feasibility and technical analyses, lower than expected grades and quantities of resources, mining rates and recovery rates and the lack of availability of necessary capital, which may not be available to the Company on terms acceptable to it or at all. The Company is subject to the specific risks inherent in the mining business as well as general economic and business conditions. For more information on the Company, Investors should review the Company's annual Form 20-F filing with the United States Securities and Exchange Commission and its home jurisdiction filings that are available at [www.sedar.com](http://www.sedar.com).

#### **Information Concerning Estimates of Measured, Indicated and Inferred Resources**

This news release also uses the terms "measured resources", "indicated resources" and "inferred resources". Northern Dynasty Minerals Ltd. advises investors that although these terms are recognized and required by Canadian regulations (under National Instrument 43-101 Standards of Disclosure for Mineral Projects), the U.S. Securities and Exchange Commission does not recognize them. Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves. In addition, "inferred resource" have a great amount of uncertainty as to their existence, and economic and legal feasibility. It cannot be assumed that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher

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category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or pre-feasibility studies, or economic studies except for Preliminary Assessment as defined under 43-101. Investors are cautioned not to assume that part or all of an inferred resource exists, or is economically or legally mineable.